Application Number 10/540659
Response to the Office Action dated 01/22/2008

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Canceled)

18. (New) A polyimide precursor liquid composition, comprising:

at least one type of tetracarboxylic dianhydride or derivative thereof;

at least one type of diamine or derivative thereof; and

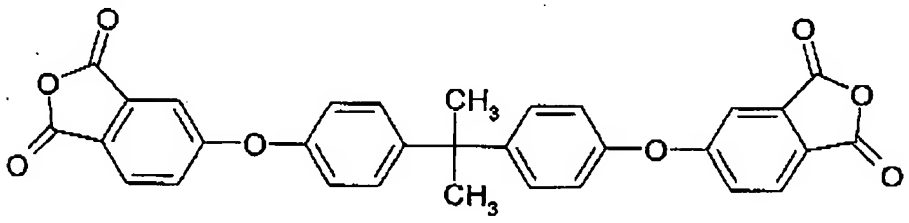
a polar polymerization solvent;

wherein the polyimide precursor liquid composition further includes a cyclic compound that is different from the polar polymerization solvent and has a 5 member ring structure that includes a carbonyl group (C=O bond);

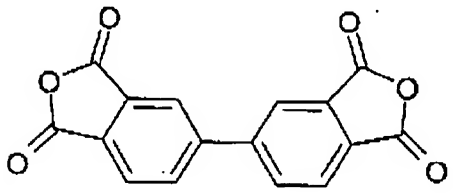
wherein the cyclic compound has a boiling point of 200°C or higher, comprises carbon, hydrogen and oxygen atoms, does not include hetero atoms of nitrogen, phosphorous and sulfur, and is at least one selected from the group consisting of ethylene carbonate, propylene carbonate, butylene carbonate and γ-butyrolactone;

wherein the tetracarboxylic dianhydride comprises at least one compound selected from a group consisting of chemical formulae 1 and 2; and

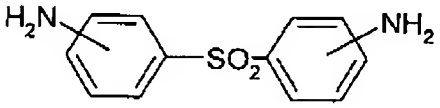
wherein the diamine is at least one compound selected from those expressed by chemical formula 3



Formula 1



Formula 2



Formula 3

19. (New) The polyimide precursor liquid composition according to claim 18, wherein when the solids portion of the polyimide precursor liquid is 100 mass parts, the polar polymerization solvent is in the range of 150 to 900 mass parts, and the cyclic compound is in the range of 15 to 750 mass parts.

20. (New) The polyimide precursor liquid composition according to claim 18, wherein the polyimide precursor polyamic acid is polymerized in the polar polymerization solvent, after to which the cyclic compound is added.

21. (New) A polyimide coating film that is obtained by converting a polyimide precursor liquid composition into an imide, the polyimide precursor liquid composition comprising:

at least one type of tetracarboxylic dianhydride or derivative thereof;

at least one type of diamine or derivative thereof; and

a polar polymerization solvent;

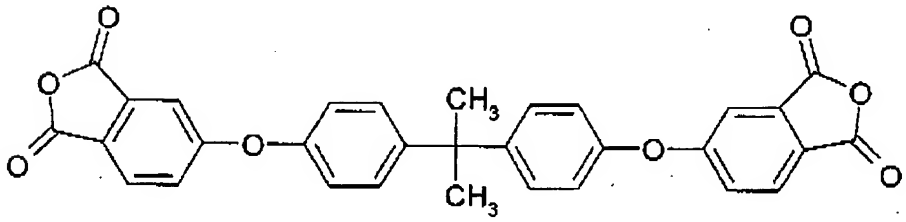
wherein the polyimide precursor liquid composition further includes a cyclic compound that is different from the polar polymerization solvent and has a 5 member ring structure that includes a carbonyl group (C=O bond);

wherein the cyclic compound has a boiling point of 200°C or more, comprises carbon, hydrogen and oxygen atoms, does not include hetero atoms of nitrogen,

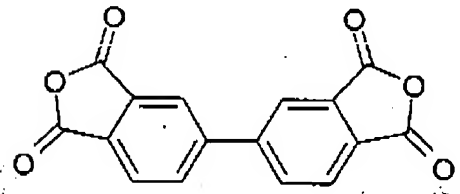
phosphorous and sulfur, and is at least one selected from the group consisting of ethylene carbonate, propylene carbonate, butylene carbonate and γ-butyrolactone;

wherein the tetracarboxylic dianhydride comprises at least one compound selected from a group consisting of chemical formulae 1 and 2, and

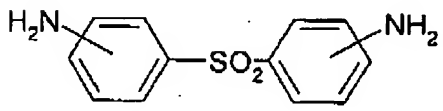
wherein the diamine is a compound expressed by the following chemical formula 3



Formula 1



Formula 2



Formula 3

22. (New) The polyimide coating film according to claim 21,

wherein when the polyimide coating film is a coating film that has a thickness of 50 ± 10 micrometers (μm) and is irradiated with light of 420 nanometers (nm), the polyimide coating film shows a transmittance of 50% or more.

23. (New) The polyimide coating film according to claim 21,

wherein the glass transition temperature (Tg) of the polyimide coating film is 200°C or more.

24. (New) The polyimide coating film according to claim 21,

wherein the water absorption of the polyimide coating film is 2.0 wt% or less.

25. (New) The polyimide coating film according to claim 21,

wherein at least a single layer of a transparent, electrically conductive film is further formed on at least one side of the polyimide coating film.

26. (New) The polyimide coating film according to claim 25,

wherein the electric resistance of the transparent, electrically conductive film is 1 $\times 10^{-2}$ Ω·cm or less.

27. (New) The polyimide coating film according to claim 21,

wherein at least a single layer of a transparent film further is formed on at least one side of the polyimide coating film.

28. (New) The polyimide coating film according to claim 27,

wherein at least a single layer of a transparent, electrically conductive film is further formed on at least one side of the transparent film.

29. (New) The polyimide coating film according to claim 28, wherein the electric resistance of the transparent, electrically conductive film is 1 $\times 10^{-2}$ Ω·cm or less.